Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities

Andhra Pradesh Pollution Control Board
D.No-33-26-14D/2. Near Sunrise Hospital, Pushpa Hotel Center, Chalamalavari Street, Kasturibaipet, Vijayawada-520010
Website : www.appcb.ap.nic.in
1. Introduction

The CPCB issued revised guidelines for CBMWTFs as per the Bio-Medical Waste Management Rules, 2016 on 21.12.2016. These guidelines were developed by the CPCB keeping in view of the entire India. The APPCB opined that there is an urgent need for further stringent guidelines for the CBMWTFs in the state of Andhra Pradesh for proper treatment and disposal of the Bio-Medical Waste generated in the state of Andhra Pradesh. In the state of Andhra Pradesh, health care facilities were developed in each and every corner including the remote areas. However the bed strength is more in the cities and densely populated districts. In order to facilitate the disposal of the bio-medical waste within 48 hours, certain changes were made in distance criteria in allowing the new CBMWTFs.

2. Criteria for development of a new Common Bio-medical Waste Treatment and Disposal Facility for a locality or region.

Prior to allowing any new CBMWTF, should meet following criteria

a. At least one CBMWTF shall be allowed in each and every district of Andhra Pradesh for disposal of Bio Medical Waste considering the increased bed strength in future, coverage of veterinary hospitals under BMW rules, reduction of the cost of the transport, biological waste & discarded medicines from the industries and better administrative control over the CBMWTFs.

b. In the densely populated districts second facility is to be encouraged (as per annexure-1).

c. In case, the existing CBMWTF fails to comply with the standards / directions / conditions stipulated by the CPCB / APPCB, repeatedly then closure order will be issued followed by cancellation of its authorization and a new CBMWTF shall be encouraged in each district irrespective of bed strength and distance criteria in order to dispose the Bio Medical Waste in compliance with the Bio Medical Waste Management Rules, 2016.

d. In case, the existing CBMWTF continues to violate the standards / directions / conditions, closure directions shall be issued without any further notice and the authorization will be cancelled.
3. **Duties of the operator of a common bio-medical waste treatment and disposal facility**

   a. No CBMWTF shall stop its operation without obtaining prior permission from the APPCB at least 15 days in advance, failing which the APPCB shall levy a penalty of not less than the charges collected from the entire HCFs in a day.

   b. The CBMWTFs are responsible for giving necessary training to the staff of HCFs on segregation of BMW. The CBMWTF shall ensure proper segregation of Bio Medical Waste at the time of collection itself.

   c. In case of improper segregation of BMW, the CBMWTF shall refuse collection of waste from the HCF and shall inform the concerned Regional Officer, APPCB. Also the monitoring officers as decided by the state level committee on bio-medical waste management.

   d. The CBMWTF shall regularly collect the BMW from all HCFs in the district irrespective of the distance from the CBMWTF.

   e. The CBMWTF shall ensure disposal of entire Bio Medical Waste within 48 hours of generation of the waste.

   f. The ash generated from incineration of Bio Medical Waste shall be disposed of at Common Hazardous Waste Treatment and Disposal Facility.

   g. No CBMWTF shall dispose incinerator ash to Municipal Landfill / onsite landfill.

   h. The incinerator ash shall be treated as Hazardous Waste and shall be disposed accordingly.

4. **Applicability of these guidelines**

   a. These guidelines are applicable to the existing CBMWTFs and also to the upcoming or new CBMWTFs. The existing CBMWTFs shall comply with these guidelines by 31\(^{st}\) December, 2018 without fail.

5. **Environmental laws applicable for commissioning or operation of a CBWTF**

   a. The CBMWTF shall comply with the provisions of Hazardous and Other Wastes (Management & Transboundary Movement) Rules, 2016 in order to dispose incinerator ash, ETP sludge, packing material used in the scrubber, wastes generated while replacing the incinerator linings i.e., refractory material etc.,
b. The CBMWTF shall comply with the provisions of Plastic Waste Management Rules, 2016 in order to dispose the Plastic Waste. The CBMWTF shall dispose the plastic waste to the agencies which were having valid CFO from the APPCB. The CBMWTF shall submit the details of Waste plastic disposed to Plastic recycling unit on monthly basis.

c. The new CBMWTF shall obtain in-principle permission from the APPCB before initiating procedure of obtaining Environmental Clearance under EIA, Notification 2006.

6. Location Criteria

a. The CBMWTF shall be 500m away from residential area.
b. The CBMWTF shall be away as far as possible from residential area, eco sensitive areas, forest/reserve forest area, rich bio diversified areas, parks, resorts etc.
c. The CBMWTF shall be located in an area where continuous hi-speed internet facility for transmission of data to CPCB/APPCB servers is available.
d. Should have minimum buffer zone of 500 m from archaeological, tourist places & projects with national importance which may get impacted by CBMWTF (on case to case basis).
e. The run-off of the storm water from the CBMWTF is to be taken into consideration. In no case, the storm water from the CBMWTF shall be allowed to mix into the fresh water body.
f. The CBMWTF shall not be located in the midst of wet agricultural lands, like paddy fields, sugar cane etc. where there will be stagnation of water, which would cause spread of infectious material to the surroundings.
g. The CBWTF shall be located near to its area of operation in order to minimize the transportation distance in waste collection, thus enhancing its operational flexibility as well as for ensuring compliance to the time limit for treatment and disposal of bio-medical waste as stipulated under the BMWM Rules (i.e., within 48 hours).
h. If number of beds is exceeding 5,000 beds in a city and surroundings, in such a case, a new CBWTF may be allowed in such a locality within 75kms from the existing CBMWTF.
i. In case of the locating the CBMWTF in industrial area, there shall not be any non-compatible industry (viz., edible industries, dairy, food processing etc.) within a radius of 100m.
7. Land Requirement

a. Sufficient land shall be allotted to new CBWTFs as per the CPCB criteria i.e Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.

8. Coverage area of CBMWF

a. If bed strength of a district exceeds 10,000 nos, second facility shall be allowed in the district without disturbing the existing facility coverage.

b. In case the CBMWF fails to collect the BMW from the remote area HCFs or any other HCFs on regular basis, new CBMWF shall be allowed without considering the bed strength tie-up with the existing CBMWF duly issuing the closure order and cancellation of authorization order.

9. Treatment equipment

a. The CBMWF shall have all necessary equipment like incinerator/plasma pyrolysis, Autoclave/hydroclave, microwaving, chemical disinfection, shredder, vehicle/container washing facility, effluent treatment plant as mentioned in the CPCB’s Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.

10. Infrastructure set up

a. The CBMWF shall have all necessary infrastructure like Treatment Equipment Room, Main waste storage space, Treated waste storage room, Administrative Room, Generator set, Continuous emission monitoring system (CEMS), Vehicle Parking, Display and sign board, Washing Room, Site Security, Fire safety, First Aid Box, Green Belt, Website as mentioned in the CPCB’s Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.

b. In addition to the above, the CBMWF shall provide IP cameras covering entire area of the CBMWF in consultation with the Regional Officer, APPCB and Environment Monitoring Cell, Board Office, APPCB, Vijayawada.
11. **Record keeping**

   a. The CBMWTF shall maintain all records as mentioned in the CPCB’s Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.

12. **Collection and transportation of bio-medical waste**

   a. Generator of the bio-medical waste and CBMWTF are responsible for proper segregation of the BMW in accordance with the provisions of the Bio-medical Waste Management Rules, 2016.

   b. The coloured bags handed over by the healthcare units shall be collected in similar coloured containers with proper cover. Each bag shall be labeled as per Schedule IV of the Bio-medical Waste Management Rules as well as with bar coding system (to be complied by the occupier or operator of a CBWTF as per BMWM Rules) so that at any time, the healthcare units can be traced back that are not segregating the bio-medical wastes as per BMWM Rules.

   c. Transportation vehicle shall be fitted with GPS to track the movement of the vehicle and the GPS tracking shall be connected to the server of the APPCB and CBMWTF’s website for public access.

   d. Bio-medical Waste Management Rules, 2016 notified on 28.03.2016 and as amended thereof under the Environment (Protection) Act, 1986, stipulates that it is the duty of every Health Care Facility (HCF) to establish a bar code system for bags or containers containing bio-medical waste (BMW) to be sent out of the premises or place for any purpose, by 27.03.2019.


   f. The other conditions mentioned in the Collection and transportation of bio-medical waste as mentioned in the CPCB’s Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.
13. **Disposal option of solid waste generated from the CBWTF**

   a. Plastic wastes after disinfection and shredding shall be sent to registered or authorized recyclers (or) for energy recovery (or) for diesel or fuel oil recovery.

   b. Disinfected Sharps (including needles) after treatment by Autoclaving or Dry Heat Sterilization followed by shredding or mutilation combination of shredding cum autoclaving shall be sent for final disposal to iron foundries having consent for operation (CFO) from the APPCB.

   c. Incineration ash (ash from incineration of any bio-medical waste) shall be disposed through hazardous waste treatment, storage and disposal facility (TSDF).

   d. Other treated solid wastes like Glass waste shall be disinfected by soaking the washed glass waste after cleaning with detergent and Sodium Hypochlorite treatment or through autoclaving or microwaving or hydroplaning and then sent for recycling.

   e. Waste Oil & Grease shall be disposed by incineration.

   f. ETP sludge after drying in sludge drying beds or removal of moisture content using ‘Filter Press’ and such ETP sludge shall be given to the hazardous waste treatment, storage and disposal facility (HWTSDF) for disposal in Secured Landfill

14. **Cost to be charged by the CBWTF Operator for the Health Care Facilities**

   a. The CBMWTF shall charge the cost as per the recommendation of the by the State Advisory Committee in consultation with the concerned APPCB, local Medical Association and the representatives of the CBWTF Association.

15. **Check list for development of CBWTF**

   a. As per the CPCB’s Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.

16. **Periodic inspection/monitoring or performance evaluation of the CBWTF**

   a. As per the CPCB’s Revised Guidelines for Common Bio-medical Waste Treatment and Disposal Facilities.

   b. Monitoring officers as suggested by the state level committee headed by Principal Secretary, Health, Medical & Family Welfare.
Annexure- 1

Weighted average \( W = \frac{W_1 + W_2 + W_3}{3} \)

\( W_1 = \) no. of beds (Max. weighted as 2)
- If \( W_1 = \) Beds \( \geq 10,000 \) \( = 2 \)
- If \( W_1 = \) Beds \( < 10,000 \) \( = 0 \)

\( W_2 = \) No of HCFs in the District (Max. weighted as 2)
- If HCFs \( \geq 550 \) \( W_2 = 2 \)
- If HCFs \( < 550 \) \( W_2 = 0 \)

\( W_3 = \) Treatment capacity,
- if Waste generation reached 75% of the existing capacity (8hrs working) then \( W_3 = 2 \)
- if Waste generation not reached 75% of the existing capacity (8hrs working) \( W_3 = 0 \)

\[ W = \frac{(W_1 + W_2 + W_3)}{3} \]

if \( W > 1 \), 2nd facility shall be allowed in that district.